

REMARKS/ARGUMENTS

I. Introduction:

Claims 1, 12, 17, and 18 are amended and claim 19 is canceled herein. With entry of this amendment, claims 1-18 and 20 will be pending.

II. Claim Rejections – 35 U.S.C. 112:

Claim 17 has been amended to specify that that storage medium stores both the codes and the path IDs.

Claim 18 has been amended to clarify that the entries in a route table and an adjacency table are programmed to define hardware resources.

Claims 17 and 18, as amended, are believed to comply with the requirements of 35 U.S.C. 112.

III. Claim Rejections – 35 U.S.C. 102:

Claims 1-3, 9-13, and 17-20 stand rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,625,161 (Su et al.).

Applicants' invention is directed to a method and system for defining hardware routing paths in a network having both IP paths and MPLS paths. The IP and MPLS paths are organized, sorted, and compared in a uniform manner so that maximum hardware path resource utilization can be achieved. Claim 1, for example, includes assigning a unique path ID for each path within a path group, comparing all path IDs in each path group, and assigning a common hardware resource to groups having matching path IDs. The path ID for each path includes an IP address. Claims 1, 12, and 17 have been amended to specify that the path group contains both IP and MPLS paths.

Applicants' invention, as set forth in the claims, provides a uniform way of handling IP and MPLS paths. The data forwarding scheme is self contained and independent of routing protocol implementation details so that routing protocol implementation change is not likely to cause data forwarding scheme changes. Furthermore, hardware resource savings are provided since multiple routes share the same hardware path.

Su et al. disclose an adaptive inverse multiplexing method and system for use in an IP network. Su et al. do not disclose a method for defining hardware routing paths in a network having both IP paths and MPLS paths, or a path group that contains both IP and MPLS paths.

Accordingly, claims 1, 12, and 17 are submitted as not anticipated by Su et al. Claims 2-11 and 18-20, depending from claim 1, and claims 13-16 depending from claim 12 are submitted as patentable for at least the reasons discussed above with respect to their base claims.

IV. Claim Rejections – 35 U.S.C. 103:

Claims 4-8, 13, 14, and 16 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Su et al. in view of U.S. Patent No. 6,731,639 (Ors et al.). Claim 15 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Su et al. in view of U.S. Patent No. 6,728,268 (Bird).

Claims 4-8, 13, and 14-16 are respectfully submitted as patentable over Ors et al. and Bird, which do not overcome the deficiencies of the primary reference discussed above.


Claims 4-8 and 14 are further submitted as patentable over the Ors et al. patent, because it does not show or suggest assigning a unique IP multicast address for each MPLS path. The Ors et al. patent is directed to MPLS for multiple access segments. As the Examiner notes in the rejection of claims 4 and 14, the switching node of Ors et al.

assigns an IP multicast label to each MPLS path in the network. Ors et al. do not assign an IP multicast address for each MPLS path, as required by claims 4 and 14. In contrast to applicants' invention, Ors et al. simply assign a label to each MPLS path and perform conventional packet forwarding based on label information.

IV. Conclusion:

For the foregoing reasons, Applicants believe that all of the pending claims are in condition for allowance and should be passed to issue. If the Examiner feels that a telephone conference would in any way expedite the prosecution of the application, please do not hesitate to call the undersigned at (408) 399-5608.

Respectfully submitted,



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